

VU Research Portal

Economic evaluation of interventions for occupational health

Uegaki, K.

2010

document version

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

Uegaki, K. (2010). *Economic evaluation of interventions for occupational health: exploring methods & applied studies*.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

E-mail address:

vuresearchportal.ub@vu.nl

1

Introduction

There are two sides to every story. The daily story of Dutch occupational health professionals involves providing care to workers with health problems on the one hand, and on the other, acting as entrepreneurs who contract out their expertise, services and programs. In addition, occupational health professionals operate in an environment in which resources to address worker health issues are limited. As such, they are increasingly called upon to not only demonstrate that the interventions they decide to prescribe are effective, but also cost-effective compared to other options.

To gain insight into the cost-effectiveness of one intervention compared to another, a research method known as an economic evaluation can be carried out¹. An economic evaluation combines information about whether a given intervention is more or less effective (compared to another) with information about whether it is more or less costly. In the end, insight into the (extra) cost for each additional unit of effect is obtained. By considering both costs and effects, occupational health professionals and other decision makers have more complete information upon which they can base treatment and funding decisions.

The first step in conducting an economic evaluation is to decide from which perspective the evaluation will be conducted as the perspective determines which costs and outcomes are relevant. Traditionally, the societal perspective is used. In The Netherlands, given the socioeconomic impact of sick leave and work disability and that the care for sick workers is organized within the national health care system, identification of cost-effective occupational health interventions from a societal perspective is in society's interest. Nevertheless, this overlooks the fact that decisions to implement occupational health interventions in the workplace lie by a company's management. In Dutch occupational health care, conducting economic evaluations from a company's perspective is relatively new and the need to develop specific methodology is a recognized priority by the field².

In this dissertation, two aspects of economic evaluations of occupational health interventions take centre stage. One, we explored how the methodology underlying economic evaluations from a company's perspective can be improved. Two, we aimed to generate new evidence of the cost-effectiveness of occupational health interventions. The specific research questions and an outline of the thesis are provided below.

Research questions and outline of the dissertation

In our exploration into how the methodology of economic evaluations of occupational health interventions from a company's perspective could be improved, we asked the following three questions:

- (i) "What is the methodological quality of published economic evaluations from a company's perspective?"
- (ii) "What methods are used to measure and value changes in health-related productivity in published economic evaluations from a company's perspective?"
- (iii) "How should we estimate the cost of health-related productivity loss in economic evaluations from a company's perspective?"

To answer the first and second methodological questions, we performed two systematic reviews. The findings are presented in chapter 2 and 3, respectively. To answer the third methodological question, we conducted a modified Delphi study with representatives from five stakeholder groups: workers/unions, companies, policy

makers, occupational health professionals, and researchers. The results are presented in chapter 4.

With regards to generating new evidence, economic evaluations were conducted alongside three different randomized controlled trials. The respective research questions were:

- (i) "Is a graded activity program given by specially-trained physical therapists cost-effective compared to usual occupational physician care in the management of subacute low back pain among airline workers on sick leave?"
- (ii) "Is a general practitioner-based minimal intervention strategy for workers with stress-related sick leave cost-effective compared to usual general practitioner care?"
- (iii) "Is an early case management by supervisors cost-effective compared to usual post-partum contact policies in preventing extended sick leave following childbirth?"

The results of these three studies are presented in chapters 5, 6 and 7, respectively.

Last, we present a general discussion of our main findings, methodological considerations and recommendations for occupational health care practice and for future research in chapter 8. The dissertation is concluded with summaries in both English and Dutch.

References

- 1 Drummond MF, Sculpher MJ, Torrance GW, O'Brien BJ, Stoddart GL. *Methods for the economic evaluation of health care programmes*. 3rd ed. Oxford: Oxford University Press, 2005.
- 2 van der Beek AJ, Frings-Dresen MH, van Dijk FJ, Houtman IL. Priorities in occupational health research: a Delphi study in The Netherlands. *Occup Environ Med* 1997;54:504-10.

12 Economic evaluation of interventions for occupational health